We claim:

1. An isolated nucleic acid molecule comprising:

(a) a nucleic acid molecule comprising a nucleic acid sequence that encodes an amino acid sequence of SEQ ID NO: 95-156;

(b) a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1-94;

(c) a nucleic acid molecule that selectively hybridizes to the nucleic acid molecule of (a) or (b); or

(d) a nucleic acid molecule having at least 95% sequence identity to the nucleic acid molecule of (a) or (b).

2. The nucleic acid molecule according to claim 1, wherein the nucleic acid molecule is a cDNA.

3. The nucleic acid molecule according to claim 1, wherein the nucleic acid molecule is genomic DNA.

4. The nucleic acid molecule according to claim 1, wherein the nucleic acid molecule is an RNA.

5. The nucleic acid molecule according to claim 1, wherein the nucleic acid molecule is a mammalian nucleic acid molecule.

6. The nucleic acid molecule according to claim 5, wherein the nucleic acid molecule is a human nucleic acid molecule.

7. A method for determining the presence of a breast specific nucleic acid (BSNA) in a sample, comprising the steps of:

(a) contacting the sample with the nucleic acid molecule of SEQ ID NO: 1-94 under conditions in which the nucleic acid molecule will selectively hybridize to a breast specific nucleic acid; and

(b) detecting hybridization of the nucleic acid molecule to a BSNA in the sample, wherein the detection of the hybridization indicates the presence of a BSNA in the sample.

8. A vector comprising the nucleic acid molecule of claim 1.

9. A host cell comprising the vector according to claim 8.

10. A method for producing a polypeptide encoded by the nucleic acid molecule according to claim 1, comprising the steps of:

(a) providing a host cell comprising the nucleic acid molecule operably linked to one or more expression control sequences, and

(b) incubating the host cell under conditions in which the polypeptide is produced.

11. A polypeptide encoded by the nucleic acid molecule according to claim 1.

12. An isolated polypeptide selected from the group consisting of:

(a) a polypeptide comprising an amino acid sequence with at least 95% sequence identity to of SEQ ID NO: 95-156 ; or

(b) a polypeptide comprising an amino acid sequence encoded by a nucleic acid molecule having at least 95% sequence identity to a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1-94.

13. An antibody or fragment thereof that specifically binds to:

(a) a polypeptide comprising an amino acid sequence with at least 95% sequence identity to of SEQ ID NO: 95-156 ; or

(b) a polypeptide comprising an amino acid sequence encoded by a nucleic acid molecule having at least 95% sequence identity to a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1-94.

14. A method for determining the presence of a breast specific protein in a sample, comprising the steps of:

(a) contacting the sample with a suitable reagent under conditions in which the reagent will selectively interact with the breast specific protein comprising an amino acid sequence with at least 95% sequence identity to of SEQ ID NO: 95-156; and

(b) detecting the interaction of the reagent with a breast specific protein in the sample, wherein the detection of binding indicates the presence of a breast specific protein in the sample.

15. A method for diagnosing or monitoring the presence and metastases of breast cancer in a patient, comprising the steps of:

(a) determining an amount of:

(i) a nucleic acid molecule comprising a nucleic acid sequence that encodes an amino acid sequence of SEQ ID NO: 95-156;

(ii) a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1-94;

(iii) a nucleic acid molecule that selectively hybridizes to the nucleic acid molecule of (i) or (ii);

(iv) a nucleic acid molecule having at least 95% sequence identity to the nucleic acid molecule of (i) or (ii);

(v) a polypeptide comprising an amino acid sequence with at least 95% sequence identity to of SEQ ID NO: 95-156 ; or

(vi) a polypeptide comprising an amino acid sequence encoded by a nucleic acid molecule having at least 95% sequence identity to a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1-94 and;

(b) comparing the determined amount of the nucleic acid molecule or the polypeptide in the sample of the patient to the amount of the breast specific marker in a normal control; wherein a difference in the determined amount of the nucleic acid molecule or the polypeptide in the sample compared to the amount of

the nucleic acid molecule or the polypeptide in the normal control is associated with the presence of breast cancer.

16. A kit for detecting a risk of cancer or presence of cancer in a patient, said kit comprising a means for determining the presence of:

(a) a nucleic acid molecule comprising a nucleic acid sequence that encodes an amino acid sequence of SEQ ID NO: 95-156;

(b) a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1-94;

(c) a nucleic acid molecule that selectively hybridizes to the nucleic acid molecule of (a) or (b); or

(d) a nucleic acid molecule having at least 95% sequence identity to the nucleic acid molecule of (a) or (b); or

(e) a polypeptide comprising an amino acid sequence with at least 95% sequence identity to of SEQ ID NO: 95-156 ; or

(f) a polypeptide comprising an amino acid sequence encoded by a nucleic acid molecule having at least 95% sequence identity to a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1-94.

17. A method of treating a patient with breast cancer, comprising the step of administering a composition consisting of:

(a) a nucleic acid molecule comprising a nucleic acid sequence that encodes an amino acid sequence of SEQ ID NO: 95-156;

(b) a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1-94;

(c) a nucleic acid molecule that selectively hybridizes to the nucleic acid molecule of (a) or (b);

(d) a nucleic acid molecule having at least 95% sequence identity to the nucleic acid molecule of (a) or (b);

(e) a polypeptide comprising an amino acid sequence with at least 95% sequence identity to of SEQ ID NO: 95-156 ; or

(f) a polypeptide comprising an amino acid sequence encoded by a nucleic acid molecule having at least 95% sequence identity to a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1-94;

to a patient in need thereof, wherein said administration induces an immune response against the breast cancer cell expressing the nucleic acid molecule or polypeptide.

18. A vaccine comprising the polypeptide or the nucleic acid encoding the polypeptide of claim 12.